


**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

620-282

APPLICANT

TICKLE, et al.

FILING DATE

October 23, 2003

SERIAL NO.

10/690,991

(Use several sheets if necessary)

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
NE	5,786,191	07/28/98	Goldstein et al	435	189	
NE	5,912,120	06/15/99	Goldstein et al	435	236	
NE	5,834,250	11/10/98	Wells et al	435	7.1	
NE	6,080,568	06/27/00	Day et al	435	202	
NE	6,136,553	10/24/00	Christianson et al	435	23	
NE	6,162,613	12/19/00	Su et al	435	15	
NE	5,886,157	03/23/99	Guengerich et al	530	412	

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
NE WO 98/02554	01/22/98	WIPO			
NE WO 01/14565	03/01/01	WIPO			
NE WO 01/11035	02/15/01	WIPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

NE	Abstract 4, Abstracts from 8 th European ISSX Meeting (Monday 28 th April 2003), Structural Characterisation of Substrate and Inhibitor Binding to 2C P450s, Eric Johnson, Scripps Research Institute, La Jolla, CA, USA
NE	Wester et al, Structure of a Substrate Complex of Mammalian Cytochrome P450 2C5 at 2.3 Å Resolution: Evidence of Multiple Substrate Binding Modes, <i>Biochemistry</i> 2003, 42, 6370-6379
NE	Wester et al, Structure of Mammalian Cytochrome P450 2C5 Complexed with Diclofenac at 2.1 Å Resolution: Evidence for an Induced Fit Model of Substrate Binding, <i>Biochemistry</i> 2003, 42, 9335-9345
NE	Crystal Structure of human cytochrome P450 2C9 with bound warfarin; Williams, P.A.; Cosme, J.; Ward, A.; Angrove, H.C.; Matak-Vinkovic, D.; Jhoti, H.; <i>Nature</i> , 2003, Jul 24; 424(6947): 464-8. (Published online Jul 13 2003).
NE	IF Sevioukova, H Li, H Zhang, JA Peterson, TL Poulos, Structure of a cytochrome P450-redox partner electron-transfer complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> (1999) 96, pp. 1863-8
NE	Szklarz GD, Halpert JR.; Molecular modeling of cytochrome P450 3A4; <i>J. Comput. Aided Mol. Des.</i> ; 1997;11(3); 265-72.
NE	Lewis DF, Eddershaw PJ, Goldfarb PS, Tarbit MH.; Molecular modelling of CYP3A4 from an alignment with CYP102: identification of key interactions between putative active site residues and CYP3A-specific chemicals; <i>Xenobiotica</i> ; 1996; 26(10);1067-86.
NE	Guengerich FP; Cytochrome P-450 3A4: regulation and role in drug metabolism; <i>Annu. Rev. Pharmacol. Toxicol.</i> ; 1999; 39;1-17.
NE	Ekins S, Bravi G, Wikel JH, Wrighton SA.; Three-dimensional-quantitative structure activity relationship analysis of cytochrome P-450 3A4 substrates; <i>J Pharmacol Exp Ther.</i> ; 1999; 291(1); 424-33.
NE	Ekins S, Bravi G, Binkley S, Gillespie JS, Ring BJ, Wikel JH, Wrighton SA.; Three- and four-dimensional quantitative structure activity relationship analyses of cytochrome P-450 3A4 inhibitors; <i>J Pharmacol Exp Ther.</i> ; 1999; 290(1); 429-38.

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)

**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

SERIAL NO.

620-282

10/690,991

APPLICANT

TICKLE, et al.

(Use several sheets if necessary)

FILING DATE

GROUP

October 23, 2003

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

NE	Gonzalez, F.J., Schmid, B.J., Umeno, M., McBride, O.W., Hardwick, J.P., Meyer, U.A., Gelboin, H.V. and Idle, J.R., Human P450PCN1: sequence, chromosome localization, and direct evidence through cDNA expression that P450PCN1 is nifedipine oxidase, <i>DNA</i> 7 (2), 79-86 (1988).
NE	Beaune, P.H., Umbenhauer, D.R., Bork, R.W., Lloyd, R.S. and Guengerich, F.P., Isolation and sequence determination of a cDNA clone related to human cytochrome P-450 nifedipine oxidase, <i>Proc. Natl. Acad. Sci. U.S.A.</i> ; 83 (21), 8064-8068 (1986).
NE	Korzekwa, K.R.; Krishnamachary, N.; Shou, M.; Ogai, A.; Parise, R.A.; Rettie, A.E.; Gonzalez, F.J.; Tracey, T.S.; Evaluation Of Atypical Cytochrome P450 Kinetics With Two-Substrate Models: Evidence That Multiple Substrate Can Bind Simultaneously Bind To Cytochrome P450 Active Sites; <i>Biochemistry</i> ; 1998, Vol 37, 4137-4147.
NE	Hosea NA, Miller GP, Guengerich FP.; Elucidation of distinct ligand binding sites for cytochrome P450 3A4; <i>Biochemistry</i> ; 2000; 39(20), 5929-39.
NE	Williams, P.; Cosme, J.; Sridhar, V.; Johnson, E. and McRee, D.; Microsomal cytochrome P450 2C5: comparison of microbial P450s and unique features, <i>Journal of Inorganic Biochemistry</i> , 2000, Vol. 81, pp183-190.
NE	T. H. Richardson, F. Jung, K. J. Griffin, M. Wester, J. L. Raucy, B. Kemper, L. M. Bornheim, C. Hassett, C. J. Omiecinski and E. F. Johnson; A Universal Approach to the Expression of Human and Rabbit Cytochrome P450s of the 2C Subfamily in Escherichia coli; <i>Archives of Biochemistry and Biophysics</i> , 1995, Volume 323, 87-96.
NE	JP10033166A2; Mass Expression System Of Modified Substance Of Ctochrome P450 2c19 In Escherichia Coli; Inventor: Baba Takahiko; Kirita Shiro; Aoyama Junko; Assignee: Shionogi & Co Ltd; Filed: July 23, 1996. (with English abstract.)
NE	Barnes HJ, Arlotto MP, Waterman MR; Expression and enzymatic activity of recombinant cytochrome P450 17 alpha-hydroxylase in Escherichia coli; <i>Proc. Natl. acad. Sci. USA</i> ; 1991, 88, 5597-5601.
NE	Kempf AC, Zanger UM, Meyer UA; Truncated human P450 2D6: expression in Escherichia coli, Ni(2+)-chelate affinity purification, and characterization of solubility and aggregation; <i>Arch. Biochem. Biophys.</i> , 1995, 321, 277-288.
NE	Gillam EM, Guo Z, Martin MV, Jenkins CM, Guengerich FP; Expression of cytochrome P450 2D6 in Escherichia coli, purification, and spectral and catalytic characterization; <i>Arch. Biochem. Biophys.</i> , 1995, 319, 540-550.
NE	Pernecky SJ, Larson JR, Philpot RM, Coon MJ; Expression of truncated forms of liver microsomal P450 cytochromes 2B4 and 2E1 in Escherichia coli: influence of NH2-terminal region on localization in cytosol and membranes; <i>Proc. Natl. Acad. Sci. USA</i> , 1993, 90, 2651-2655.

*Examiner	Date Considered
-----------	-----------------

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Noted 7/13/05

Form PTO-FB-A820 (Also PTO-1449)

**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

SERIAL NO.

620-282

10/690,991

APPLICANT

TICKLE, et al.

(Use several sheets if necessary)

FILING DATE

GROUP

October 23, 2003

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

NE	JR Larson, MJ Coon, and TD Porter; Alcohol-inducible cytochrome P-450IIE1 lacking the hydrophobic NH2-terminal segment retains catalytic activity and is membrane-bound when expressed in Escherichia coli; <i>J. Biol. Chem.</i> , 1991, 266, 7321-7324.
NE	Sagara Y., Barnes H. J. and Waterman M. R.; Expression in <i>Escherichia coli</i> of Functional Cytochrome P450 _{c17} Lacking Its Hydrophobic Amino-Terminal Signal Anchor, <i>Arch. Biochem. Biophys.</i> , 1993, 304, 272-278.
NE	Emily E. Scott, Margit Spatzenegger and James R. Halpert ; A Truncation of 2B Subfamily Cytochromes P450 Yields Increased Expression Levels, Increased Solubility, and Decreased Aggregation While Retaining Function, <i>Arch. Biochem. Biophys.</i> , 2001, Volume 395, Issue 1, 57-68.
NE	Gillam EM, Baba T, Kim BR, Ohmori S, Guengerich FP; Expression of modified human cytochrome P450 3A4 in Escherichia coli and purification and reconstitution of the enzyme; <i>Arch Biochem Biophys.</i> , 1993; 305(1); 123-31.
NE	Meehan,R.R., Gosden,J.R., Rout,D., Hastie,N.D., Friedberg,T., Adesnik,M., Buckland,R., van Heyningen,V., Fletcher,J.M., Spurr,N.K., Sweeney,J. and Wolf,C.R.; Human cytochrome P-450 PB-1: a multigene family involved in mephenytoin and steroid oxidations that maps to chromosome 10; <i>Am. J. Hum. Genet.</i> ; 1988, 42 (1), 26-37.
NE	Kimura,S., Pastewka,J., Gelboin,H.V. and Gonzalez,F.J.; cDNA and amino acid sequences of two members of the human P450IIC gene subfamily; <i>Nucleic Acids Res.</i> ; 1987, 15 (23), 10053-10054.
NE	Romkes,M., Faletto,M.B., Blaisdell,J.A., Raucy,J.L. and Goldstein,J.A.; Cloning and expression of complementary DNAs for multiple members of the human cytochrome P450IIC subfamily; <i>Biochemistry</i> ; 1991, 30 (13), 3247-3255.
NE	Gonzalez,F.J., Vilbois,F., Hardwick,J.P., McBride,O.W., Nebert,D.W., Gelboin,H.V. and Meyer,U.A.; Human debrisoquine 4-hydroxylase (P450IID1): cDNA and deduced amino acid sequence and assignment of the CYP2D locus to chromosome 22; <i>Genomics</i> , 1988, vol 2 (2), 174-179.
NE	David R. Nelson <i>et al.</i> , P450 Superfamily: update on new sequences, gene mapping, accession numbers and nomenclature, <i>Pharmacogenetics</i> 6 1-42 (1996).
NE	Nienaber <i>et al.</i> , Re-engineering of Human Urokinase Provides a System for Structure-based Drug Design at High Resolution and Reveals a Novel Structural Subsite, <i>J. Biol. Chem.</i> 275(10) 7239-7248 (2000)
NE	Dale <i>et al.</i> , Crystal Engineering: deletion mutagenesis of the 24 kDa fragment of the DNA gyrase B subunit from <i>Staphylococcus aureus</i> , <i>Acta Crystallographica D</i> 55, 1626-1629 (1999)

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Noted 7/13/05

Form PTO-FB-A820 (Also PTO-1449)

**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

SERIAL NO.

620-282

10/690,991

APPLICANT

TICKLE, et al.

(Use several sheets if necessary)

FILING DATE

GROUP

October 23, 2003

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

NE	Wolfram Schiweck and Arne Skerra, The Rational Construction of an Antibody against Cystatin: Lessons from the crystal structure of an artificial Fab fragment, <i>J. Mol. Biol.</i> 268 934-951 (1997)
NE	Stephen R. Price and Kiyoshi Nagai, Protein Engineering as a Tool for Crystallography, <i>Current Opinion in Biotechnology</i> 6 425-430 (1995)
NE	Lawson et al., Solving the Structure of Human H Ferritin by Genetically Engineering Intermolecular Crystal Contacts, <i>Nature</i> 349 541-544 (1991)
NE	Park Sam-Yong et al, Crystallization and Preliminary X-ray Diffraction Analysis of a Cytochrome P450 (CYP119) from <i>Sulfolobus solfataricus</i> , <i>Acta Crystallographica Section D Biological Crystallography</i> 56 : 1173-1175, 2000
NE	Ridderstrom et al, Arginines 97 and 108 in CYP2C9 Are Important Determinants of the Catalytic Function, <i>Biochemical and Biophysical Research Communications</i> 270 : 983-987, 2000
NE	Payne et al, Homology Modeling and Substrate Binding Study of Human CYP2C9 Enzyme, <i>Proteins</i> , 37 : 176-190, 1999
NE	Ekins et al, Pharmacophore and Three-Dimensional Quantitative Structure Activity Relationship Methods For Modeling Cytochrome P450 Active Sites, <i>Drug Metabolism and Disposition</i> , 29 : 936-944, 2001
NE	Stubbins et al, Genetic Analysis of the Human Cytochrome P450 CYP2C9 Locus, <i>Pharmacogenetics</i> , 6 : 429-439, 1996.

*Examiner _____ Date Considered _____

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

NEshed 7/13/05

Form PTO-FB-A820 (Also PTO-1449)

INFORMATION DISCLOSURE CITATION

ATTY. DOCKET NO.

620-282

APPLICANT

TICKLE, et al.

FILING DATE

October 23, 2003

SERIAL NO.

10/690,991

GROUP

(Use several sheets if necessary)



U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS							TRANSLATION	
DOCUMENT		DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	
Me	WO 03/102192	12/2003	WIPO					
Me	WO 99/08812	02/1999	WIPO					
Me	DE 195 49 267A1	07/1997	Germany					

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

[illegible]

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)

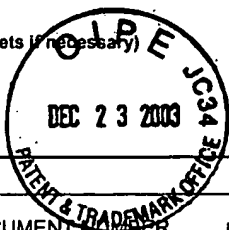
Applicant

(Use several sheets if necessary)

Filing Date

October 23, 2003

Gr up

[illegible][illegible]

ME	Williams et al., "Mammalian Microsomal Cytochrome P450 Monooxygenase: Structural Adaptations for Membrane Binding and Functional Diversity," Molecular Cell, Vol. 5 (January 2000), pp. 121-131
ME	Wachenfeldt et al., "Microsomal P450 2C3 Is Expressed as a Soluble Dimer in Escherichia coli Following Modifications of Its N-terminus," Archives of Biochemistry and Biophysics, Vol. 339, No. 1 (March 1997), pp. 107-114
ME	Cosme et al., "Engineering Microsomal Cytochrome P450 2C5 to Be a Soluble, Monomeric Enzyme," The Journal of Biological Chemistry, Vol. 275, No. 4 (January 2000), pp. 2545-2553
ME	Hasemann et al., "Crystal Structure and Refinement of Cytochrome P450 _{terp} at 2.3 Å Resolution," J. Mol. Biol. 236 (1994), pp. 1169-1185
ME	Lewis, David, "Homology modeling of human cytochromes P450 involved in xenobiotic metabolism and rationalization of substrate selectivity," Exp Toxic Pathol. 51 (1999), pp/ 369-374
ME	Ibeanu et al., "Identification of Residues 99, 220, and 221 of Human Cytochrome P450 2C19 as Key Determinants of Omeprazole Hydroxylase Activity," The Journal of Biological Chemistry, Vol. 271, No. 21 (May 1988), pp. 12496-12501

Date Considered

802656

SERIAL NO.

10/690,991

~~APPLICANT~~

PICKLE, et al.

(Use several sheets if necessary)

EXPIRATION DATE

GROUP

October 23, 2003

Unassigned

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

[illegible]

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)

received 6/28/05

Sheet 1 of 1

**INFORMATION DISCLOSURE
CITATION**

ATTY. DOCKET NO.

SERIAL NO.

620-282

10/690,991

APPLICANT

TICKLE, et al.

(Use several sheets if necessary)

FILING DATE

GROUP

October 23, 2003

1652

FOREIGN PATENT DOCUMENTS

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO
NE WO 03/035693 A		WIPO				
NE WO 03/040994 A		WIPO				

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

NE	Afzelius Lovisa et al., Molecular Pharmacology, April 2001; Vol. 59, no. 4: 909 - 919
NE	Armelle Melet et al.; Archives of Biochemistry and Biophysics, Volume 409, Issue 1, 1 January 2003, Pages 80-91.
NE	Blundell, T. L. et al., Nature Reviews. Drug Discovery, Nature Publishing Group, Basingstoke, GB; Vol. 1, no. 1, Jan. 2002, 45 - 54
NE	Cheng-Chung Tsao et al.; Biochemistry; 2001; 40(7), 1937 - 1944
NE	Dansette, Patrick M.; Universite Rene Descartes, Paris, France. Abstract/Poster 81. Sulphenazole Derivatives as Tools for Comparing CYP 2C5 and Human 2C's: Identification of a New High Affinity Substrate (DMZ) Common to Those CYP 2C Enzymes.
NE	de Groot, M. J. et al.; J. Med. Chem.; 2002; 45(10); 1983-1993
NE	He M et al.; Arch Biochem Biophys. 1999 Dec 1;372(1):16-28.
NE	Hutzler, J.M. et al.; Archives of Biochemistry and Biophysics; 2003, 410, 16-24.
NE	Hutzler, J.M. et al.; Drug Metabolism and Disposition, 2002, Vol 30, pp 1194-1200.
NE	Hutzler, J.M. et al.; Drug Metabolism and Disposition, 2001, Vol 29, 1029-1034.
NE	Kaminsky LS, Zhang ZY.; Pharmacol Ther. 1997;73(1):67-74.
NE	Kunze KL et al.; Drug Metab Dispos. 1996 Apr;24(4):414-21.
NE	Lewis, D. F. V., Archives of Biochemistry and Biophysics; 2003, Vol. 409, no. 1: 32 - 44
NE	Longenecker KL et al.; Acta Crystallogr D Biol Crystallogr; 2001, 57(Pt 5), 679-88
NE	Mansuy, Daniel; Universite Rene Descartes, Paris, France. Abstract 5. Origin of Substrate Specificity of Cytochromes P450 2C: Chemical and Biochemical Approaches.
NE	Marques-Soares, C. et al; Biochemistry; 2003; 42(21); 6363-6369
NE	Ravichandran K G et al., Science, vol. 261, pages 731-736, 6 August 1993
NE	Schoch GA et al; J Biol. Chem. 2004 Mar 5; 279(10): 9497-9503.
NE	Wester et al., JBC, Aug 2004; 279: 35630-35637
NE	Zamora, I.; Afzelius, L.; Cruciani, G.; J. Med. Chem.; 2003; 46(12); 2313-2324.
NE	Zamora, Isobel; Lead Molecular Design, S.L. Sant Cugat del Valles, Spain. Abstract/Poster 77. Metabolism Prediction for Cytochrome P450.

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 608; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

N. Sneed 7/13/05

Form PTO-FB-A820 (Also PTO-1449)